



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D5425-043
Job Sheet 188020



Part No: D5425-043

Job Qty: 1 ea

Part Name: Float Skidtube Assembly



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 12/31/18

Job Tracking No:

Due Date: 2/20/19

Created By: Jesse White

Type: Stock

Description:

Note: DWG D5425 REV.B IPP REV:A 17.11.02 NEW ISSUE DD VERF:JFS IPP REV:B 18.08.20 AS PER DWG
REV.B DD VERF:DP

Ship Via:

Bill of Materials



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S142992



Part: D5425-043

Job No: 188020

Serial No/Batch: S142992

Revision: B

Inspector:

Exp Date:

Instructions: Various STC's

Date: 01/05/19

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		2/20/19	0.00	0.00	Start Up Skid tubes-2		
110	Skid tubes	1 pcs		2/20/19	0.00	8.24	Skid tubes-3		
120	CNC Vertical Machining	1 pcs		2/20/19	0.00	22.77	HAAS1-4		
130	QC	1 pcs		2/20/19	0.00	0.00	QC2 Machining-4		
140	QC	1 pcs		2/20/19	0.00	0.00	QC8 Machining-4		
150	HandFinish	1 pcs		2/20/19	0.00	0.24	HandFinish1		
160	QC	1 pcs		2/20/19	0.00	0.00	QC7-5		
170	CNC Bend Skid tubes	1 pcs		2/20/19	0.00	2.63	CNC Bend Skid tube		
180	QC	1 pcs		2/20/19	0.00	0.00	QC5		
190	Skid tubes	1 pcs		2/20/19	0.00	8.24	Skid tubes-3		
200	QC	1 pcs		2/20/19	0.00	0.00	QC5		
210	HandFinish	1 pcs		2/20/19	0.00	0.24	HandFinish6		
220	QC	1 pcs		2/20/19	0.00	0.00	QC7-5		
230	Skid tubes	1 pcs		2/20/19	0.00	8.24	Skid tubes-3		
240	QC	1 pcs		2/20/19	0.00	0.00	QC5		
250	HandFinish	1 pcs		2/20/19	0.00	0.24	HandFinish6		
260	QC	1 pcs		2/20/19	0.00	0.00	QC7-5		
270	SprayPaint	1 pcs		2/20/19	0.00	0.00	Spray Paint		
280	QC	1 pcs		2/20/19	0.00	0.00	QC14		
290	HandFinish	1 pcs		2/20/19	0.00	0.24	HandFinish4		
300	QC	1 pcs		2/20/19	0.00	0.00	QC5		
310	Packaging	1 pcs		2/20/19	0.00	0.00	Packaging3-2		
320	QC21-SA	1 Ea		2/20/19	0.00	0.00	QC21		

Part Op 110 - 1-Cut tube to finished length as per Dwg. 2-Deburr ends as per Dwg.

Descriptions: 120 - 1-Machine as per Dwg. and Folio FB536 DWG REV: _____ FOLIO REV: _____ 2-Deburr as per Dwg.

150 - 1-Scrub inside of tube with medium scotchbright.

170 - 1-Bend Aft end of tube as per Dwg. and Folio _____. Insert Bending mandrel DT 10328 at 20.0" from aft end. Use buggy A,B,C. to stabilize tube. HEIGHT _____. 2-Bend Forward end of tube as per Dwg. and Folio _____. Insert Bending mandrel DT 10328 at 12.0" from fwd end. Use buggy A,B,C To stabilize tube. HEIGHT _____. 3-Record dimensions on work order.

180 - #NAME?

190 - 1-Drill remaining holes of DETAIL M, N, P. USING DT10340 A,B,C,D 2-Open holes to finished size as per Dwg. 3-Deburr holes per QSI002 section 4.2.3 and blow out all chips from inside of tube.

230 - 1-Wet install crossbolt spacers of Section G-G. Swage to 0.437 as per Dwg. PRIMER B Start Time: _____ Finish Time: _____ ***CURE TIME 6HRS. BEFORE PROCEEDING TO NEXT STEP*** 2-Swage crossbolt spacers of Section F-F to 0.313 as per Dwg. 3-Trim / Grind flush, deburr. 4-Identify per QSI 044 6.1

250 - ***DO NOT SUBMERGE TUBE IN DEOXIDIZER***

270 - ***PLUG ALL CROSSBOLT SPACER HOLES PRIOR TO PRIME AND PAINT*** 1-PRIME AS PER DWG AND QSI005 4.2.1.3.3 PRIMER BATCH: 5163577 2-PAINT AS PER DWG AND QSI005 4.2.2.4 PAINT BATCH: 5173197290 - 1-Install FWD and AFT cap seal with sikaflex-241 / 291 5174342 Exp: 19/12 Start time: 8:00AM Finish time: 8:00PM 2-Coat all exposed hardware with LPS Procyon. Remove any excess off with MEK degreaser. A/R LPS Procyon B 1133690

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6028-195	Crosstube Material, 7075-T73/T73511	1 Ea (1 ea)	90-Start up Operation	<u>5017944</u>
D5518-1	Crossbolt Spacer	18 pcs (18 ea)	230-Skid tubes	<u>5148264</u>
D5512-1	Crossbolt Spacer	12 pcs (12 ea)	230-Skid tubes	<u>5173351</u>
AN3C5A	Bolt	6 Ea (6 ea)	290-HandFinish	<u>5156446</u>
D3672-1	Washer, Phenolic	6 pcs (6 ea)	290-HandFinish	<u>5164008</u>
D5483-041	Tow Cap Assembly	1 pcs (1 ea)	290-HandFinish	<u>5150717</u>
D5484-041	Aft Cap Assembly	1 pcs (1 ea)	290-HandFinish	<u>5151947</u>
NAS1149C0332R	Washer	6 Ea (6 ea)	290-HandFinish	<u>5148669</u>

Entered: _____ Date: _____



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Other/Details:					

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D6028-195	1	13	0
230-Skidtubes	D5512-1	12	40	0
	D5518-1	18	93	0
290-HandFinish	AN3C5A	6	1,249	0
	D3672-1	6	1,959	0
	D5483-041	1	0	0
	D5484-041	1	0	0
	NAS1149C0332R	6	3,130	0
Part Specifications				
Specifications could not be found.				

Plex 12/31/18 2:16 PM dart.white.jesse

Entered: _____ Date: _____

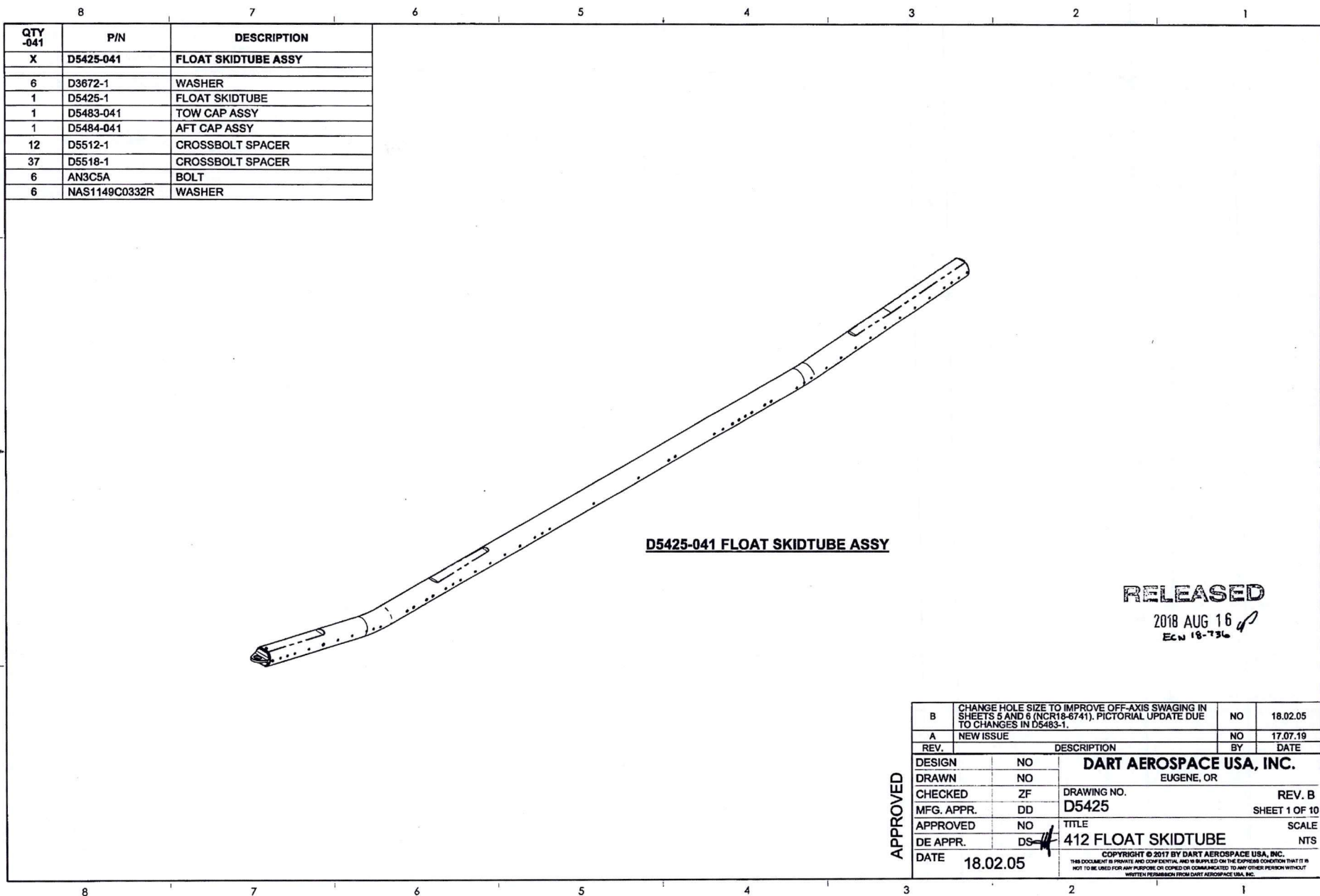


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Other/Details:					



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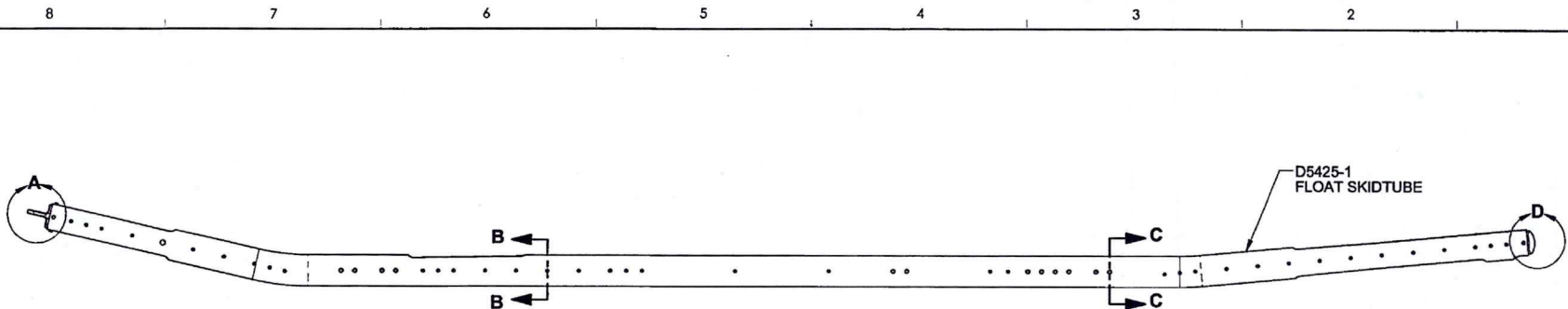


WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

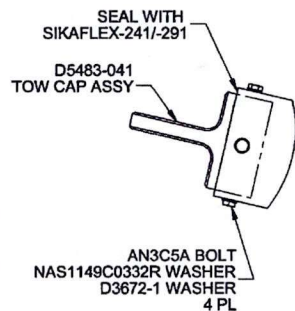
NCR No. _____

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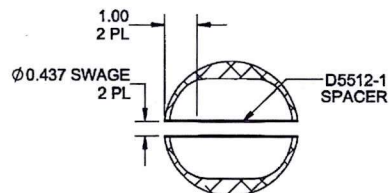
Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
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Other/Details:					



D5425-041 FLOAT SKIDTUBE ASSY

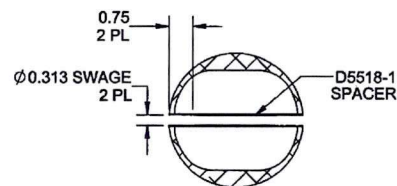


DETAIL A
SCALE 4X



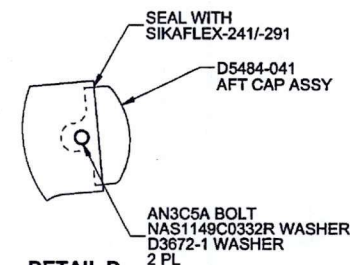
AFTER DRILLING AND BENDING, PERFORM THE FOLLOWING FOR $\phi 0.508$ HOLES ONLY:
1. WET INSTALL D5512-1 SPACER PER QSI 002
2. SWAGE TO $\phi 0.437 \times 1.00$ DEEP PER QSI 002
3. TRIM / GRIND FLUSH PER QSI 002

SECTION C-C
SCALE 4X
12 PL



AFTER DRILLING AND BENDING, PERFORM THE FOLLOWING FOR $\phi 0.377$ HOLES ONLY:
1. INSERT D5518-1 SPACER
2. SWAGE TO $\phi 0.313 \times 0.75$ DEEP PER QSI 002
3. TRIM / GRIND FLUSH PER QSI 002

SECTION B-B
SCALE 4X
37 PL



DETAIL D
SCALE 4X

RELEASED

2018 AUG 16

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME PER DART QSI 005 4.2.1.3.3
PAINT PER DART QSI 005 4.2.2.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 54.5lbs
- 8) COAT ALL EXPOSED FASTENERS WITH LPS "LPS PROCYON"

APPROVED

DESIGN	NO	DART AEROSPACE USA, INC.	
DRAWN	NO	EUGENE, OR	
CHECKED	ZF	DRAWING NO.	REV. B
MFG. APPR.	DD	D5425	SHEET 2 OF 10
APPROVED	NO	TITLE	SCALE
DE APPR.	DS	412 FLOAT SKIDTUBE	NTS
DATE	18.02.05	COPYRIGHT © 2017 BY DART AEROSPACE USA, INC.	
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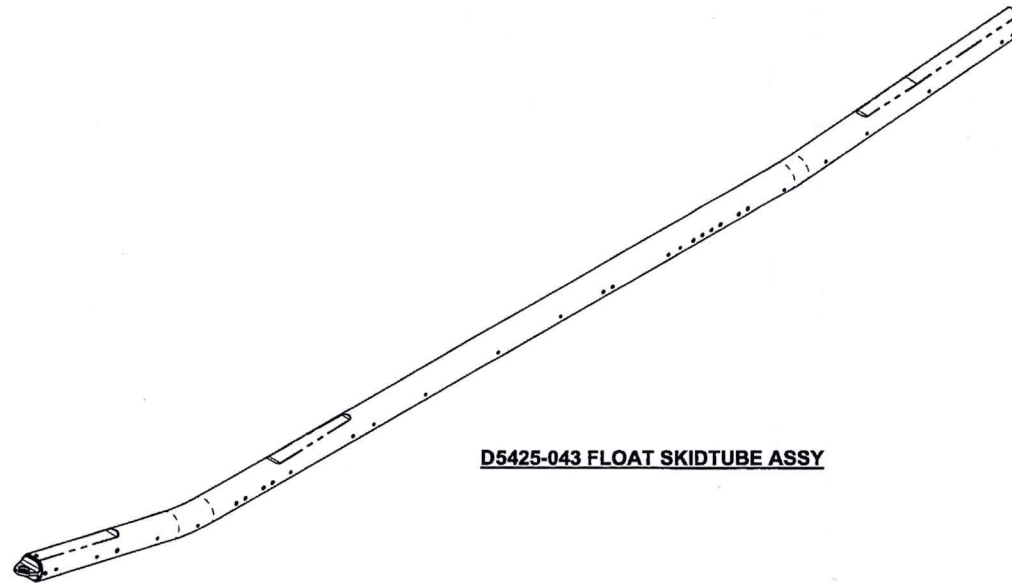
WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

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Description Work Order Deviation		Disposition		Completed By	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread		Other/Details: _____ _____ _____			

QTY -043	P/N	DESCRIPTION
X	D5425-043	FLOAT SKIDTUBE ASSY
6	D3672-1	WASHER
1	D5425-3	FLOAT SKIDTUBE (DART TRIBAG)
1	D5483-041	TOW CAP ASSY
1	D5484-041	AFT CAP ASSY
12	D5512-1	CROSSBOLT SPACER
18	D5518-1	CROSSBOLT SPACER
6	AN3C5A	BOLT
6	NAS1149C0332R	WASHER



D5425-043 FLOAT SKIDTUBE ASSY

RELEASED

2018 AUG 16 *42*

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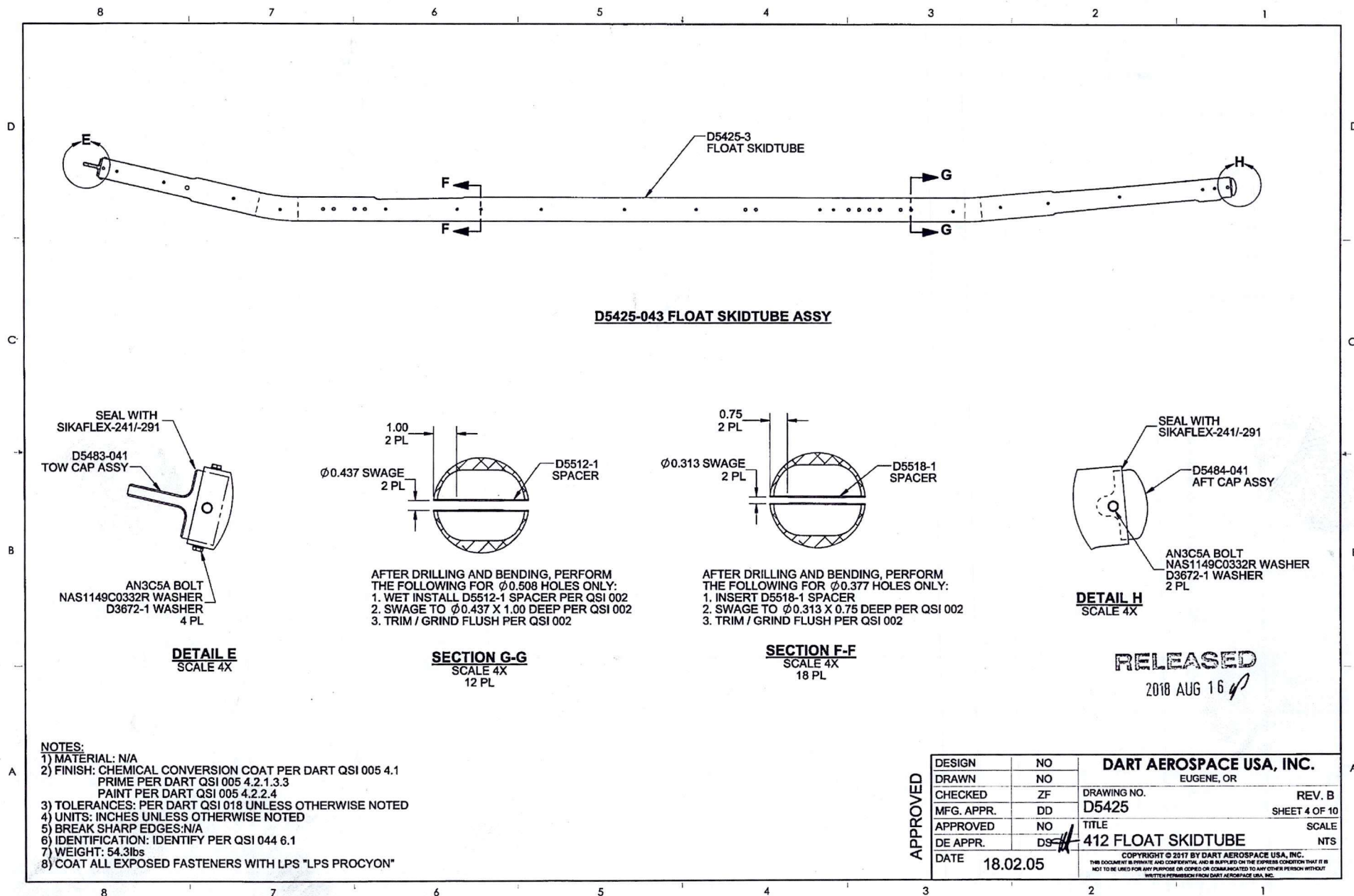


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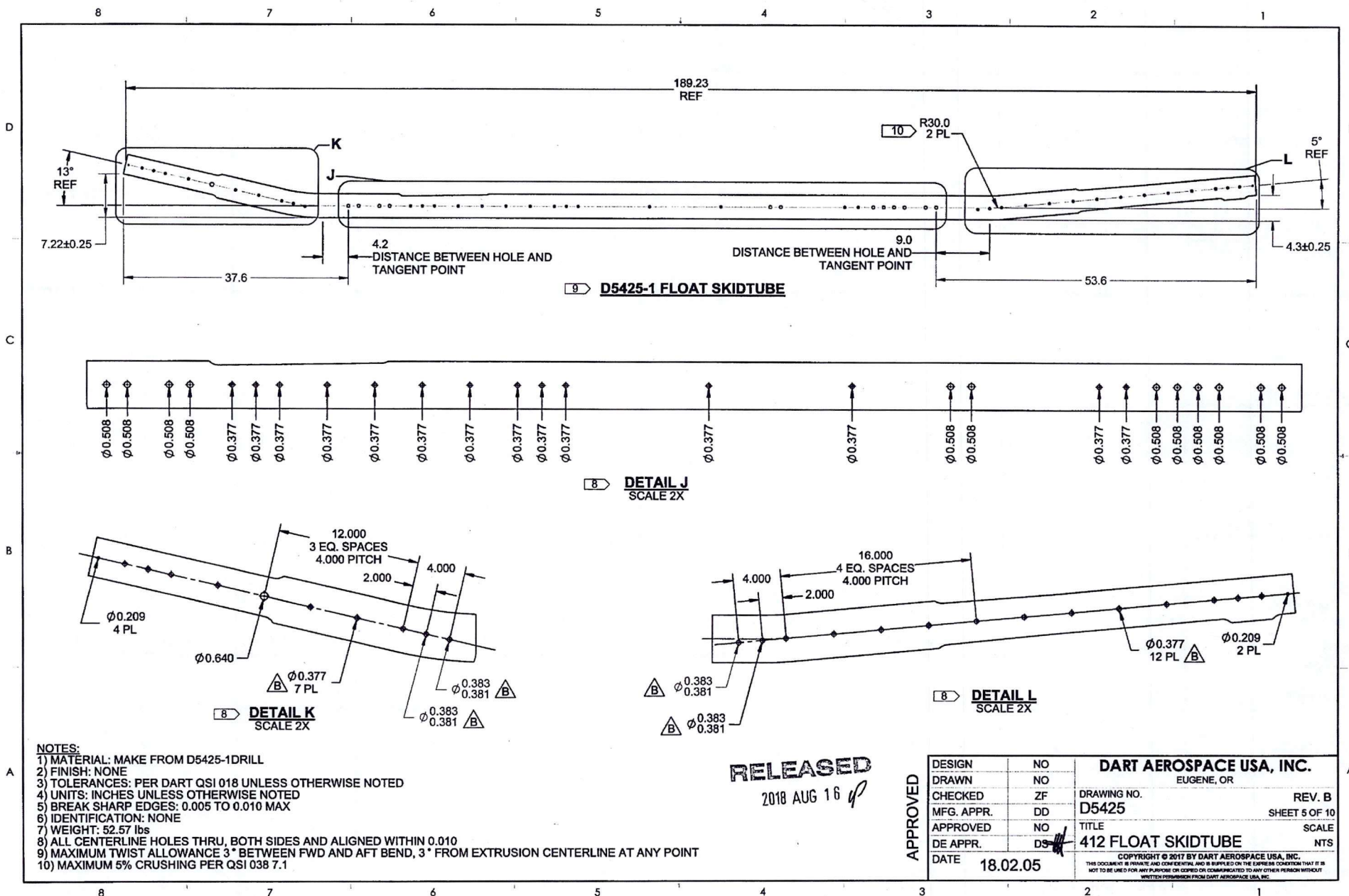


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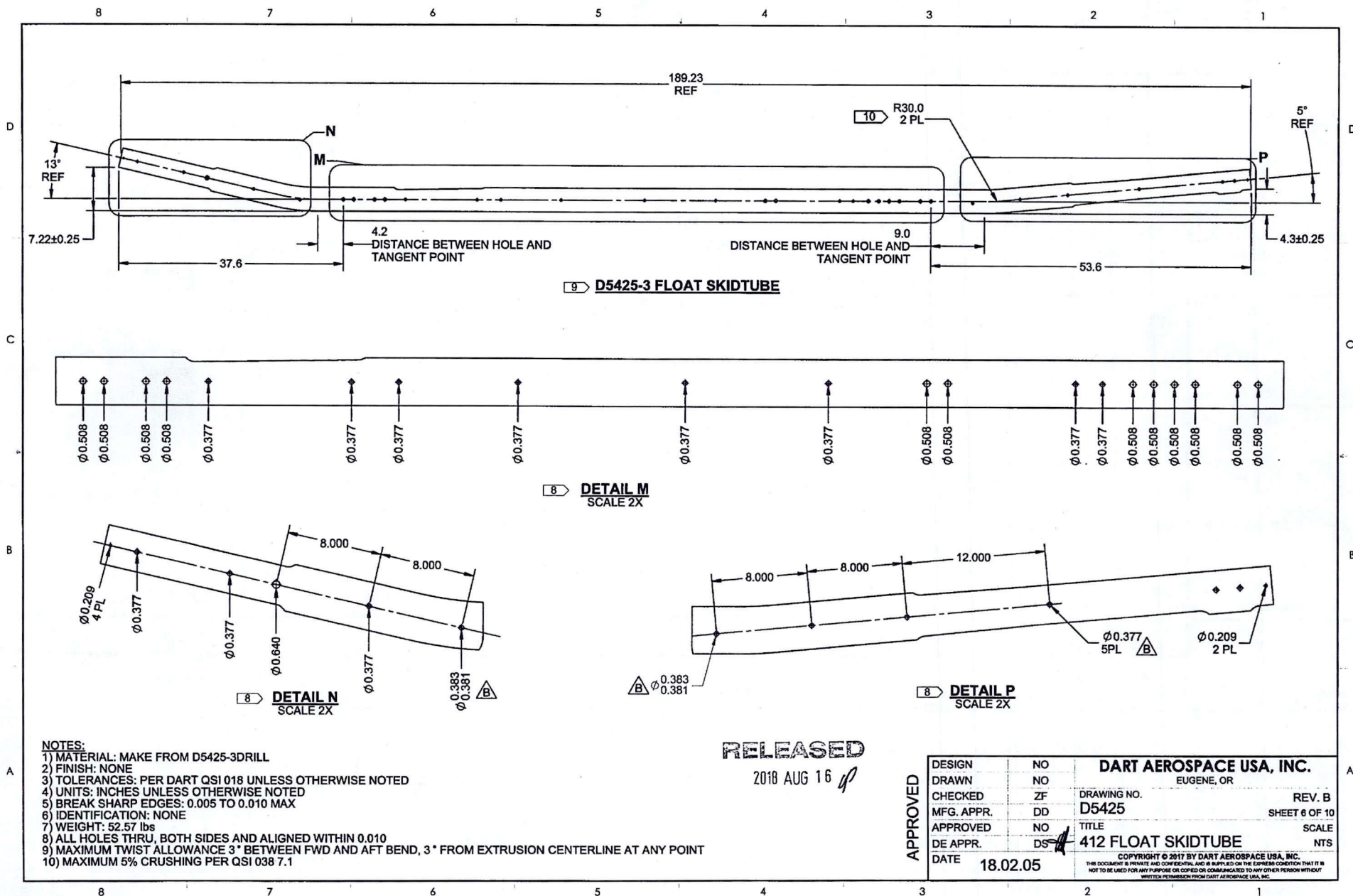


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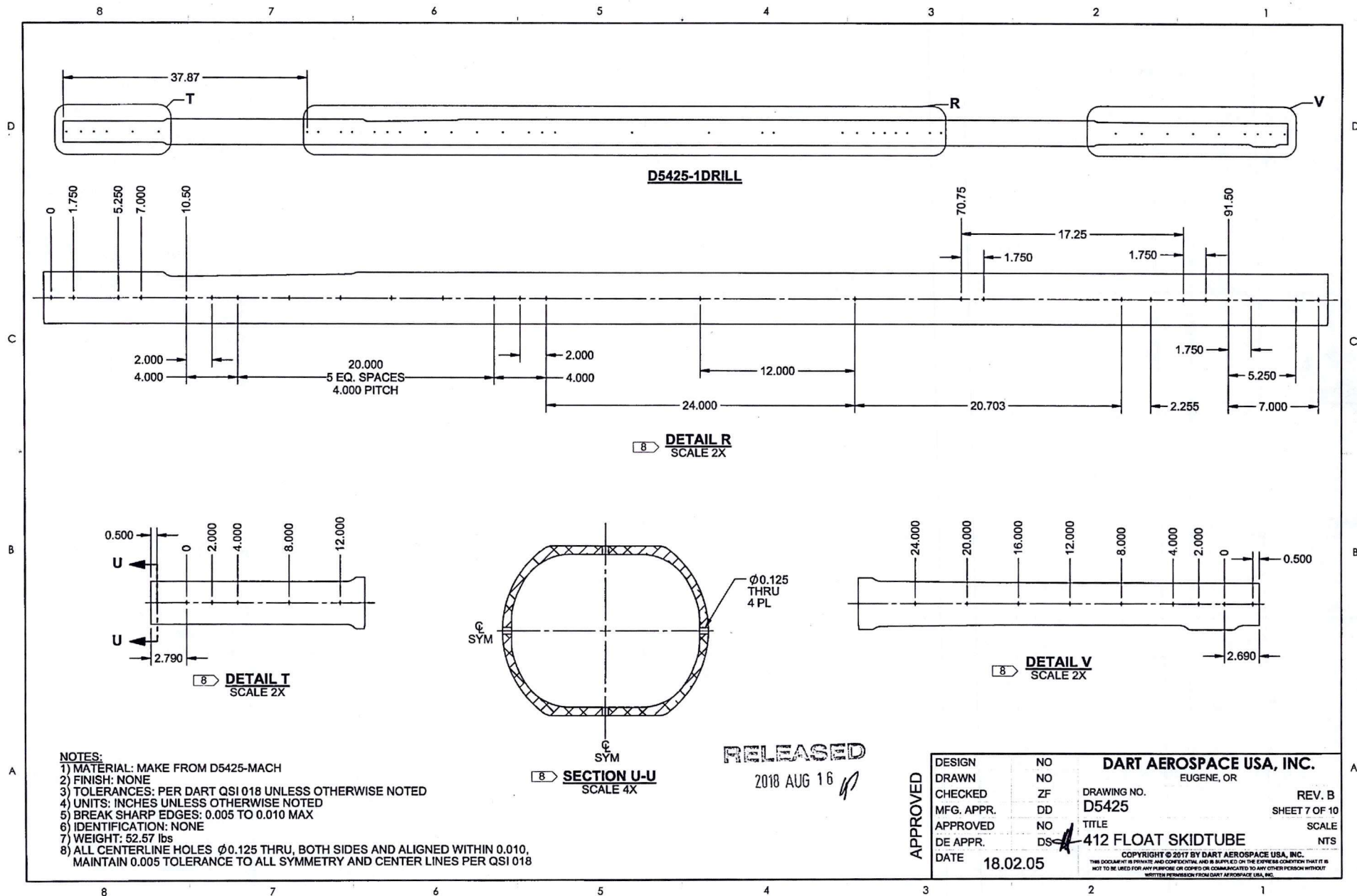


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NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date : _____	Sequence #: _____	QTY Affected : _____		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled		FAULT CATEGORY ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Entered: _____ Date: _____

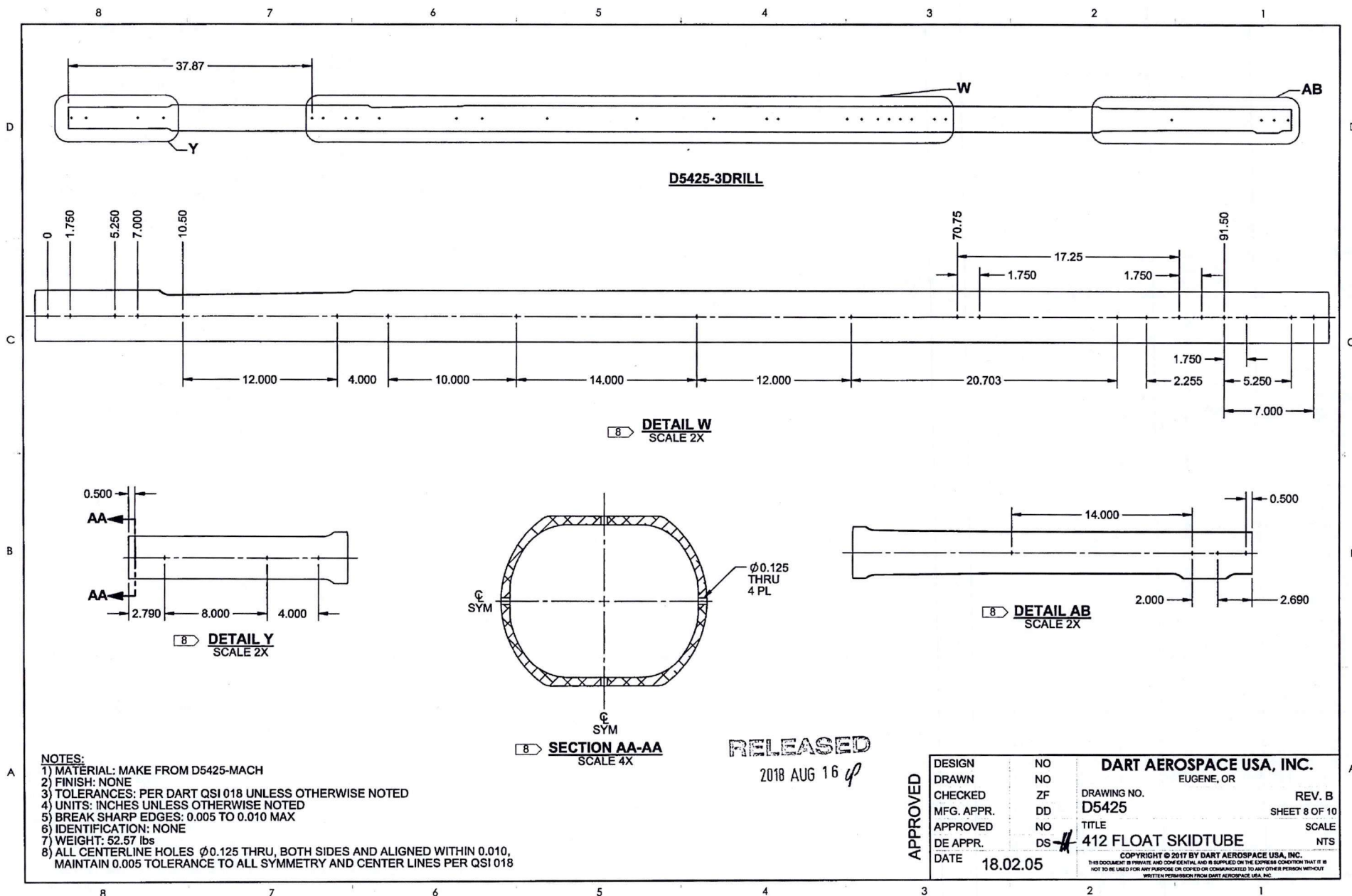


WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
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Description Work Order Deviation		Disposition			
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
		Other/Details: _____			



Entered: _____ Date: _____

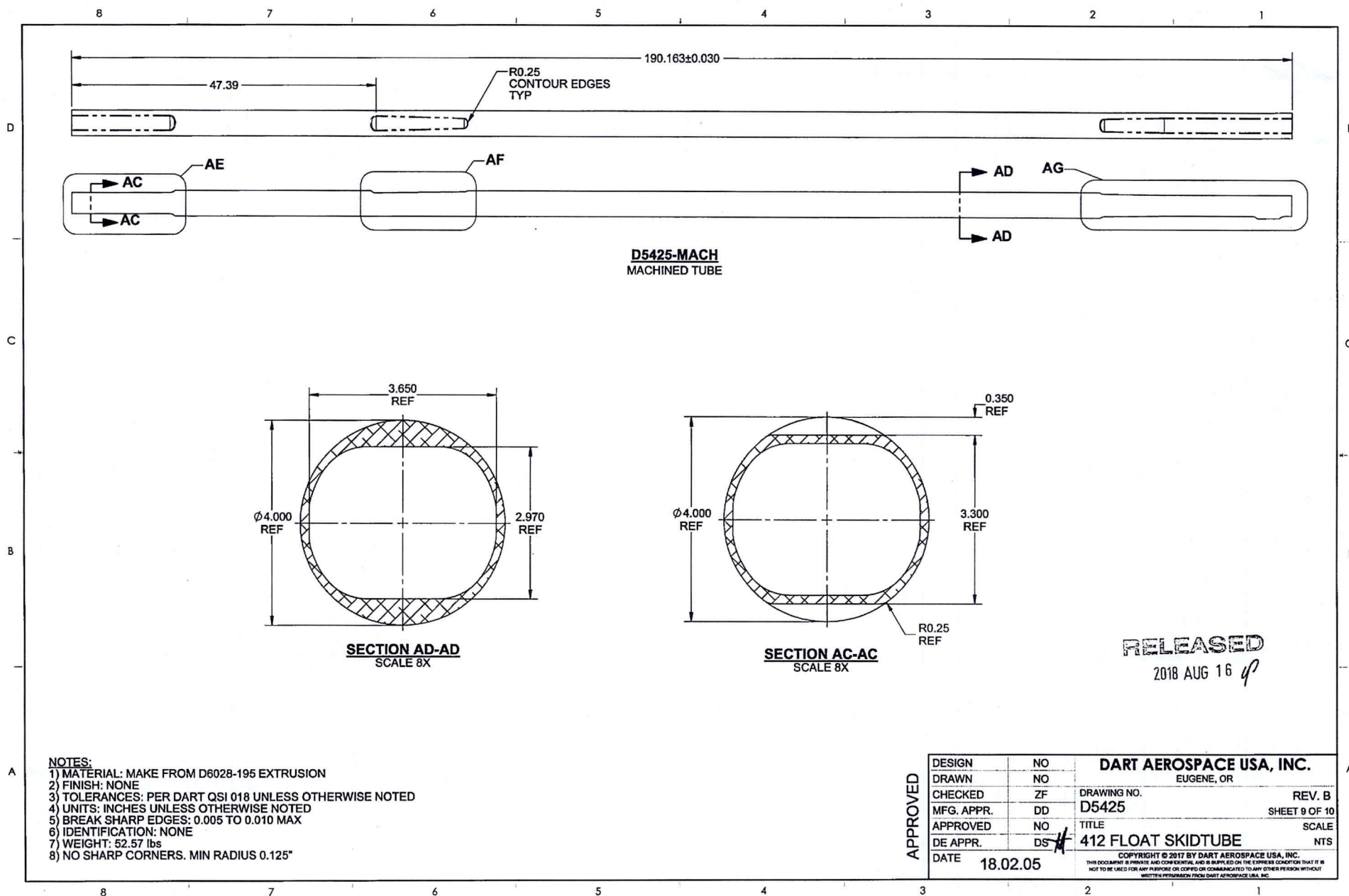


WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

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Other/Details:					



Entered: _____ Date: _____



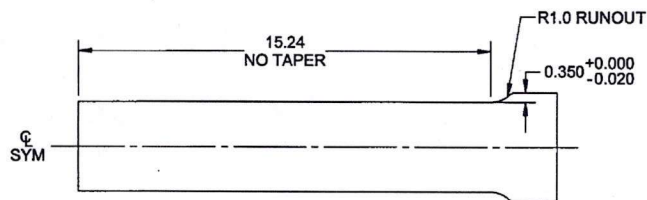
WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

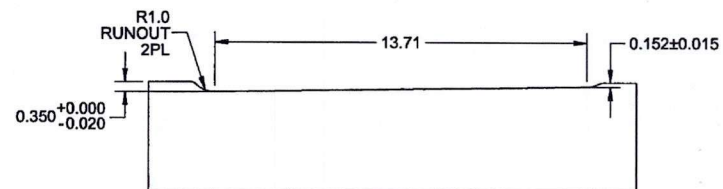
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Other/Details:					

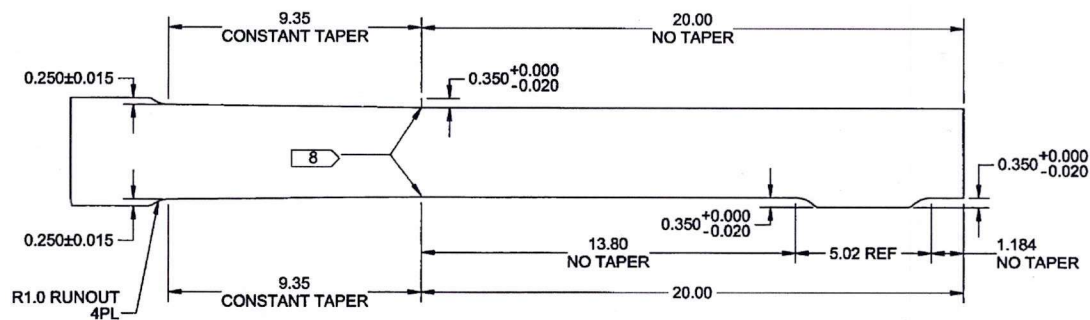
8 7 6 5 4 3 2 1



DETAIL AE
SCALE 3X



DETAIL AF
SCALE 3X



DETAIL AG
SCALE 3X

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2018 AUG 16 *4P*

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